

# BBI Bookabie Land System

**Area:** 506.9 km<sup>2</sup>

**Landscape:** Gently undulating stony rises formed on Ripon / Bakara Calcrete, overlain in places by calcareous silty sands of the Woorinen Formation.

**Annual rainfall:** 280 – 315 mm average

**Main soils:** Chintumba - B1 (Hypervescent, Petrocalcic, Lithocalcic Calcarosol)  
Medium thickness highly calcareous sandy loam to sandy clay loam containing increasing amounts of rubble with depth, over sheet calcrete at less than 50 cm.

**Minor soils:** Nundroo - B2/A4b (Hypervescent, Petrocalcic, Hypercalcic Calcarosol)  
Highly calcareous reddish clay loam grading to a very highly calcareous yellowish red light clay over rubbly or more commonly sheet calcrete within 75 cm.

Bookabie - A4a (Regolithic, Hypercalcic / Lithocalcic Calcarosol)

Calcareous soft sandy loam to sandy clay loam, becoming more clayey and calcareous with depth, over Class III A, B or C fine to rubbly carbonate in a sandy clay loam to light clay matrix, from about 40 cm.

Wookata - A1 (Supravescent, Hypercalcic / Lithocalcic Calcarosol)

Highly calcareous (more than 40% CaCO<sub>3</sub>) soft loamy sand to sandy loam grading to very highly calcareous sandy loam with variable rubble content.

Wookata (shallow) - A1/B1 (Supravescent, Petrocalcic, Lithocalcic Calcarosol)

Highly calcareous (more than 40% CaCO<sub>3</sub>) soft loamy sand to sandy loam grading to very highly calcareous sandy loam with variable rubble content, over calcrete at about 40 cm.

Magnesia soil - A4b (Epihypersodic, Supracalcic, Regolithic Calcarosol)

Calcareous sandy loam to sandy clay loam, becoming more clayey and rubbly with depth. Saline throughout.

Saline soil - N2 (Salic / Hypersalic Hydrosol)

Miscellaneous wet saline soil influenced by rising saline groundwater tables.

**Summary:** The majority of the land comprises stony rises with shallow soils and extensive sheet calcrete. Much is non arable. Limited areas of deeper calcareous sandy loams are arable, but have several limitations including marginal fertility, slight to moderate wind erosion potential, and high subsoil boron and salt. There are sporadic magnesia patches, most common in clayey depressions.



**Soil Landscape Unit summary:** 6 Soil Landscape Units (SLUs) mapped in the Bookabie Land System:

SLU	% of area	Component	Main soils	Prop#	Notes
IUU	5.3	Flats and depressions with 10-50% magnesia patches	Nundroo	V	Clayey flats with variable salinity (and about 30% magnesia patches), and high boron - non arable.
			Magnesia	C	
QHA	10.4	Stony flats	Chintumba	D	Shallow stony soils - semi arable. Cropping possible on deeper patches. Minor magnesia patches (up to 2% in <b>QHB</b> , 2-10% in <b>QHA</b> ). Slight wind and water erosion potential.
QHB	80.5	Stony rises	Magnesia	M	
SzA	1.7	Sandy loam flats Stony flats	Bookabie	V	Calcareous sandy loam with moderate fertility and water holding capacity (fully arable), with shallow stony soils as for <b>QHA</b> .
			Chintumba	E	
			Magnesia	M	
YEL	1.3	Sandy loam flats	Wookata	V	Highly calcareous sandy loams with marginal fertility and slight to moderate wind erosion potential. High subsoil boron and salt. Shallow variant has very low water holding capacity and sufficient surface stone to interfere with cultivation.
		Stony flats	Shallow Wookata	C	
ZH-	0.8	Salt flats	Saline soil	D	Highly to extremely saline land of little agricultural use.

# PROPORTION codes assigned to Soil Landscape Unit (SLU) components:

- (D) Dominant in extent (>90% of SLU)
- (V) Very extensive in extent (60–90% of SLU)
- (E) Extensive in extent (30–60% of SLU)
- (C) Common in extent (20–30% of SLU)
- (L) Limited in extent (10–20% of SLU)
- (M) Minor in extent (<10% of SLU)

**Further information:** [DEWNR Soil and Land Program](#)

